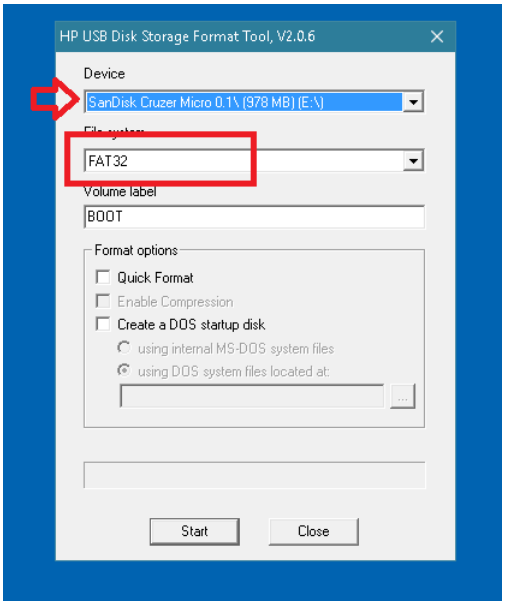
Format USB or SD as boot-enabled device

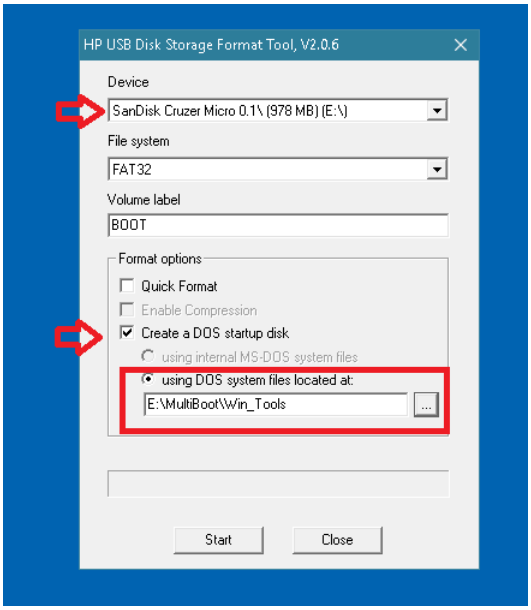
The procedure **is only needed once** for **all PC** booting from **BIOS** interface

The device can be a USB key or an SD card, it depends on the PC HW capability

and dimension can by 8 or 16 or 32 Gb. Format the new device as FAT32 with

Multiboot\Win_Tools\hpusbfw.exe (use boot files from **Multiboot\Win_Tools**)

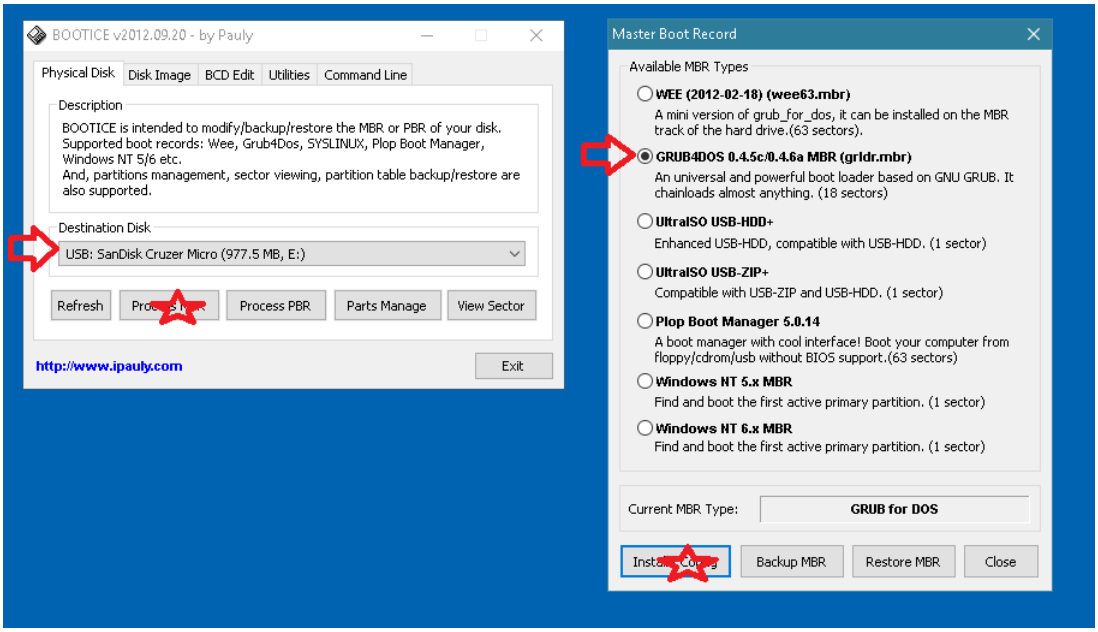


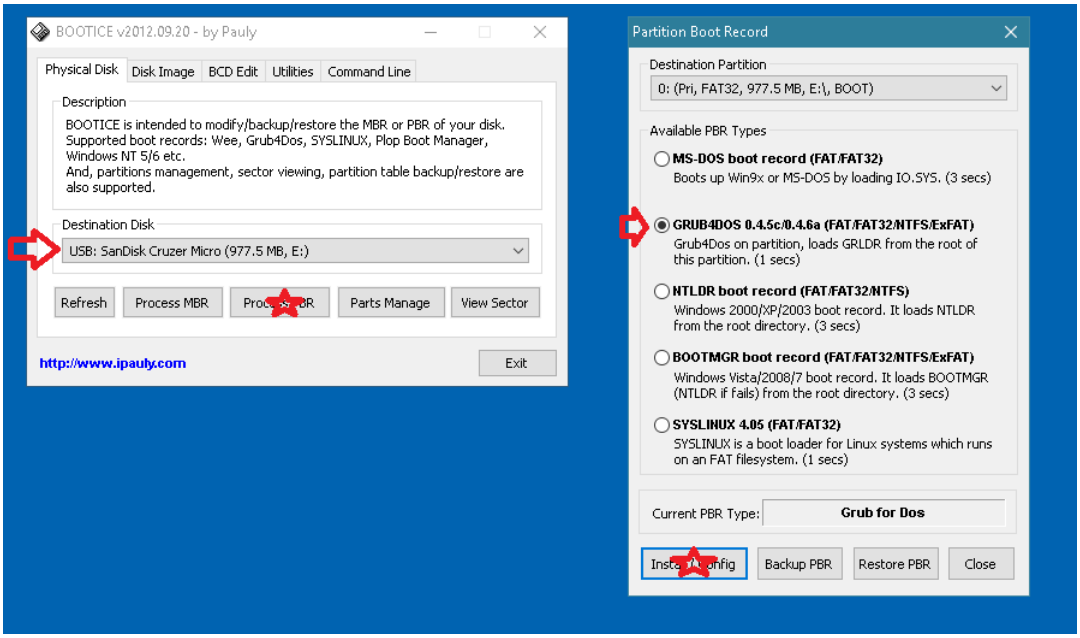


Install a new bootloader Grub4Dos on MBR and on PBR with

Multiboot\Win_Tools\BootIce.exe program

(from Windows as Administrator , pay attention to the correct device to install !!)


BOOTICE v2012.09.20 - by Pauly
Physical Disk
Disk Image
BCD Edit
Utilities
Command Line
Description
BOOTICE is intended to modify/backup/restore the MBR or PBR of your disk.
Supported boot records: Wee, Grub4Dos, SYSLINUX, Plop Boot Manager, Windows NT 5/6 etc.
And, partitions management, sector viewing, partition table backup/restore are also supported.
Destination Disk
USB: SanDisk Cruzer Micro (977.5 MB, E:)
Refresh
Process PBR
Parts Manage
View Sector
http://www.ipauly.com
Exit
Master Boot Record
Available MBR Types
WEE (2012-02-18) (wee63.mbr)
A mini version of grub_for_dos, it can be installed on the MBR track of the hard drive.(63 sectors).
GRUB4DOS 0.4.5c/0.4.6a MBR (grldr.mbr)
An universal and powerful boot loader based on GNU GRUB. It chainloads almost anything. (18 sectors)
UltraISO USB-HDD+
Enhanced USB-HDD, compatible with USB-HDD. (1 sector)
UltraISO USB-ZIP+
Compatible with USB-ZIP and USB-HDD. (1 sector)
Plop Boot Manager 5.0.14
A boot manager with cool interface! Boot your computer from floppy/cdrom/usb without BIOS support.(63 sectors)
Windows NT 5.x MBR
Find and boot the first active primary partition. (1 sector)
Windows NT 6.x MBR
Find and boot the first active primary partition. (1 sector)
Current MBR Type:
GRUB for DOS
Backup MBR
Restore MBR
Close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And, partitions management, sector viewing, partition table backup/restore are also supported.
Destination Disk
USB: SanDisk Cruzer Micro (977.5 MB, E:)
Refresh
Process MBR
Parts Manage
View Sector
http://www.ipauly.com
Exit
Partition Boot Record
Destination Partition
0: (Pri, FAT32, 977.5 MB, E:\, BOOT)
Available PBR Types
MS-DOS boot record (FAT/FAT32)
Boots up Win9x or MS-DOS by loading IO.SYS. (3 secs)
GRUB4DOS 0.4.5c/0.4.6a (FAT/FAT32/NTFS/ExFAT)
Grub4Dos on partition, loads GRLDR from the root of this partition. (1 secs)
NTLDR boot record (FAT/FAT32/NTFS)
Windows 2000/XP/2003 boot record. It loads NTLDR from the root directory. (3 secs)
BOOTMGR boot record (FAT/FAT32/NTFS/ExFAT)
Windows Vista/2008/7 boot record. It loads BOOTMGR (NTLDR if fails) from the root directory. (3 secs)
SYSLINUX 4.05 (FAT/FAT32)
SYSLINUX is a boot loader for Linux systems which runs on an FAT filesystem. (1 secs)
Current PBR Type:
Grub for Dos
Backup PBR
Restore PBR
Close

N.B. for open *.7z and *.iso files download and use 7.Zip

Extract all the files contained in On_Primary_Active_Partition.7z to the root of the device

N.B. (files as “grldr” may be hidden from viewing from Window)

Extract all the files contained in USB-EFI-GRUB_(date).7z to the root of the device

Try **now** to test boot from the **USB device**

(see the BIOS setup instructions from the PC manufacturer)

Complete the USB population

Extract from KNOPPIX_9.1-2021-01-25.ISO the two files KNOPPIX and KNOPPIX1

from iso to KNOPPIX

As optional You can add UBUNTU and KALI (only live)

Extract from UBUNTU-16.04.1-desktop-amd64.iso

the whole contents of directory UBUNTU\casper

Extract from kali-linux-2022-W21-live-amd64.iso

the whole contents of directory KALI\live

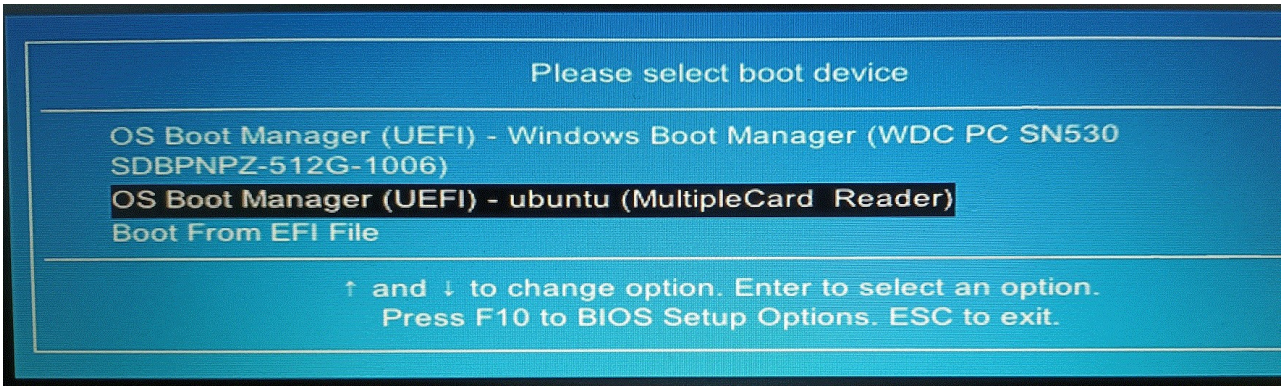
Extract from WinPE10_8_Sergei_Strelec_x86_x64_2021.01.05_English.iso

the whole contents of directory SSTR

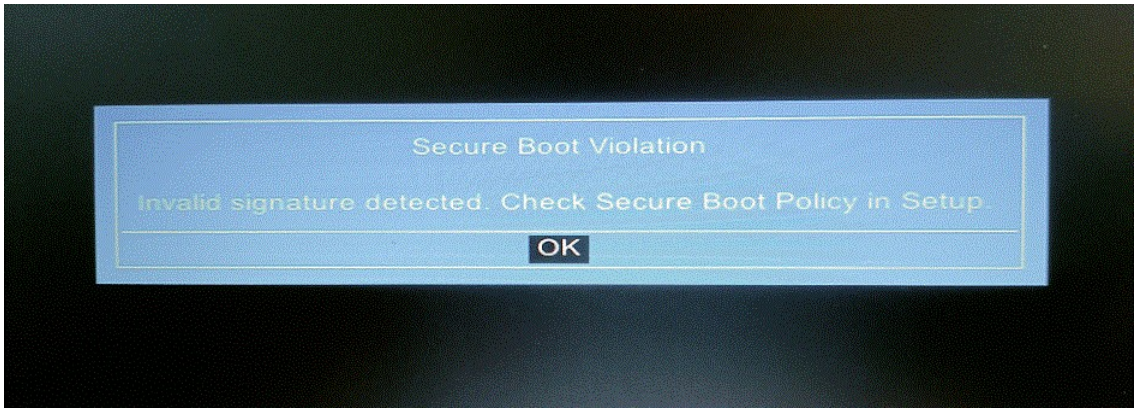
Check UEFI boot

To boot from the **USB device** see the BIOS setup instructions from the PC manufacturer

Reboot the PC from USB device and select the alternative OS

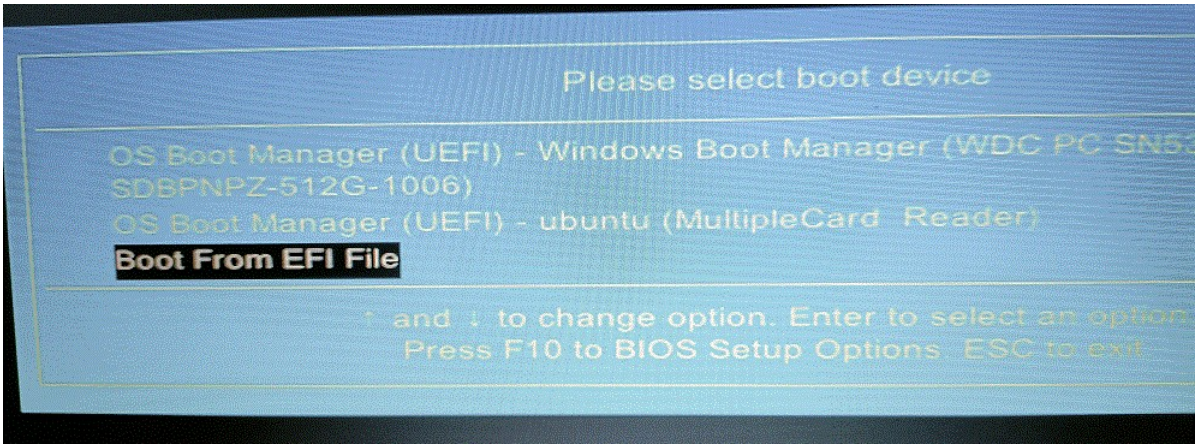

Please select boot device
OS Boot Manager (UEFI) - Windows Boot Manager (WDC PC SN530 SDBPNPZ-512G-1006)
OS Boot Manager (UEFI) - ubuntu (MultipleCard Reader)
Boot From EFI File
↑ and ↓ to change option. Enter to select an option.
Press F10 to BIOS Setup Options. ESC to exit.

In the case of **UEFI Protected PC** , You can see this message



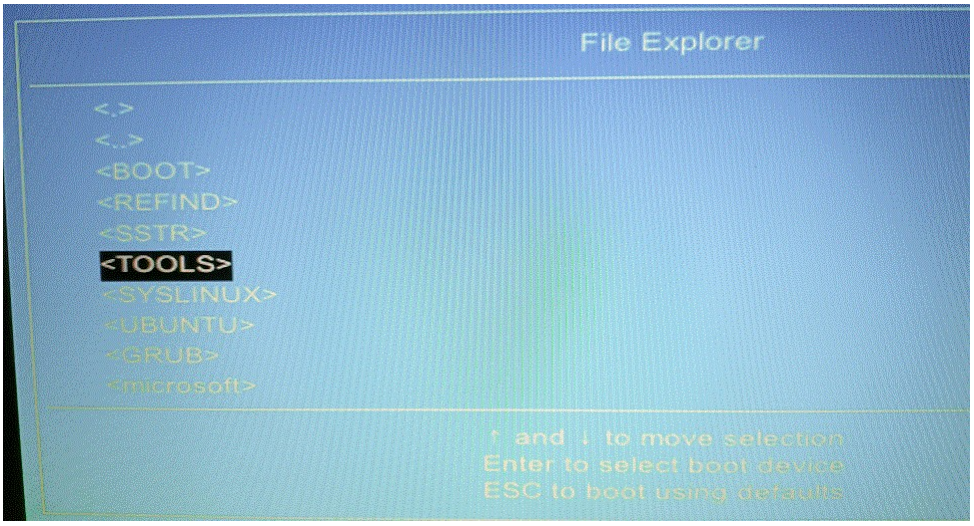
Bypass UEFI checksum !

Do **NOT** remove **"Secure boot"** try to add you signature:

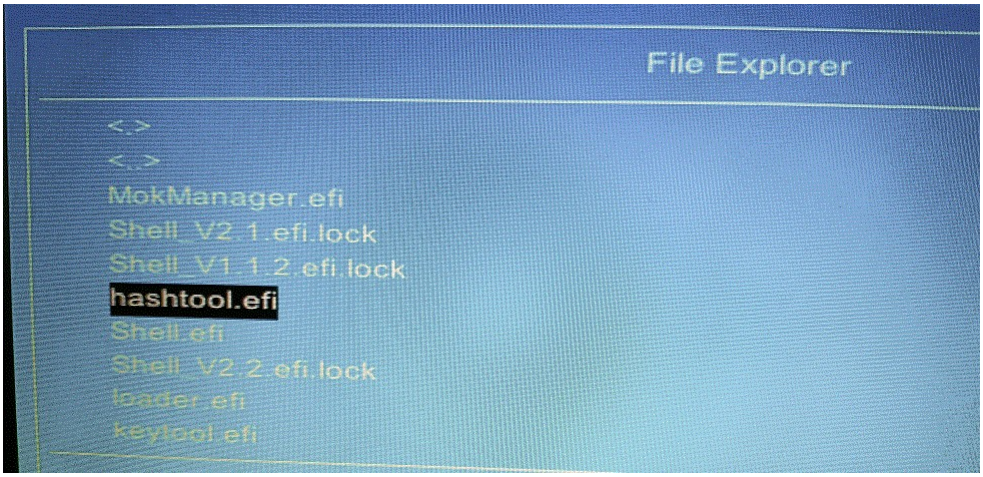

Please select boot device
OS Boot Manager (UEFI) - Windows Boot Manager (WDC PC SN5
SDBPNPZ-512G-1006)
OS Boot Manager (UEFI) - ubuntu (MultipleCard Reader)
Boot From EFI File
↑ and ↓ to change option. Enter to select an option
Press F10 to BIOS Setup Options ESC to exit

The procedure of enrolling the checksum in UEFI secure boot **is only needed once** for **this PC** or to **be repeated for a new PC**.

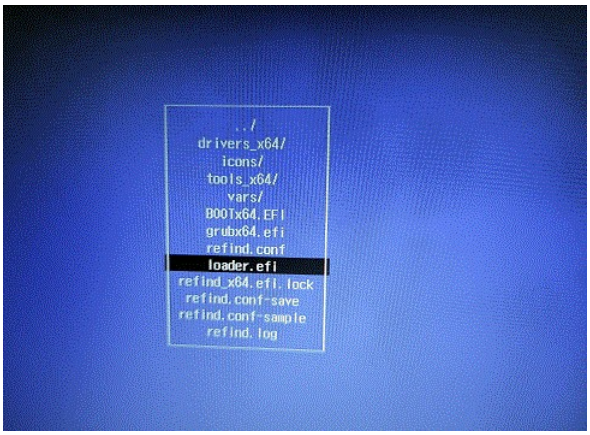
Search inside EFI/Tools the hashtool.efi to insert the signed checksum of the bootloader in the UEFI firmware database



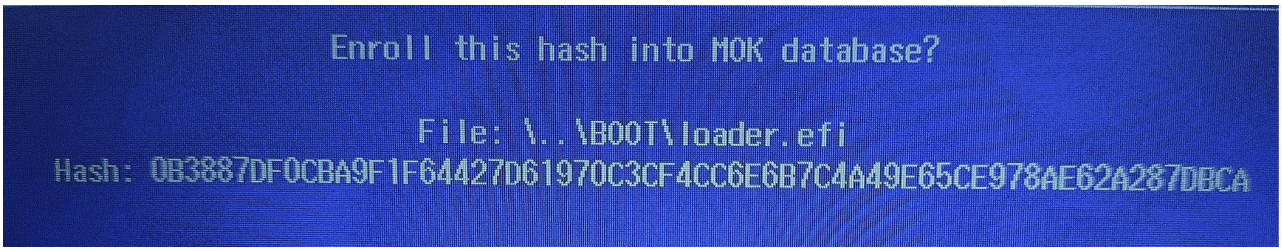
select hashtool.efi



At this point, the program EFI/BOOT/loader.efi has to be selected (use arrow keys):



Assume that the checksum shown is correct and accept.

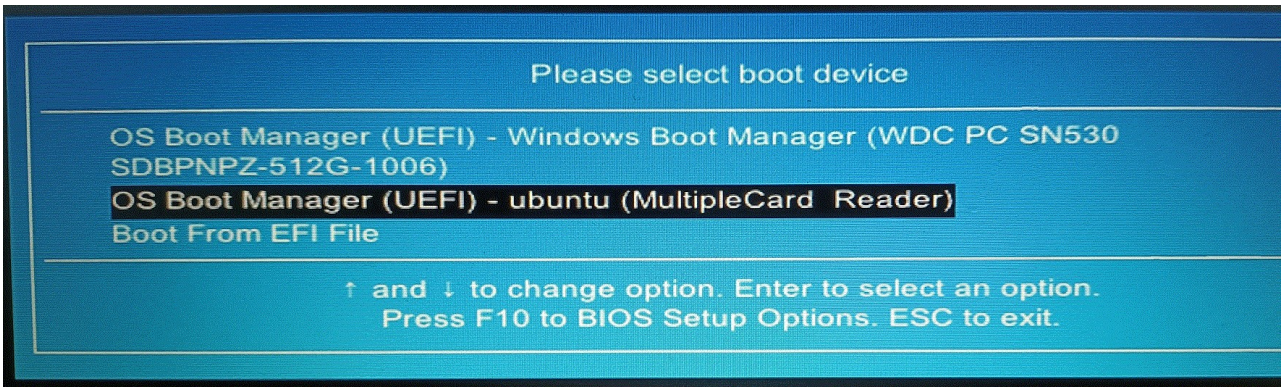


Confirm then, leave HashTool and close.

To boot from the **USB device** see the BIOS setup instructions from the PC manufacturer

Reboot the PC from USB device

Now the UEFI boot screen of MultiBoot should appear:

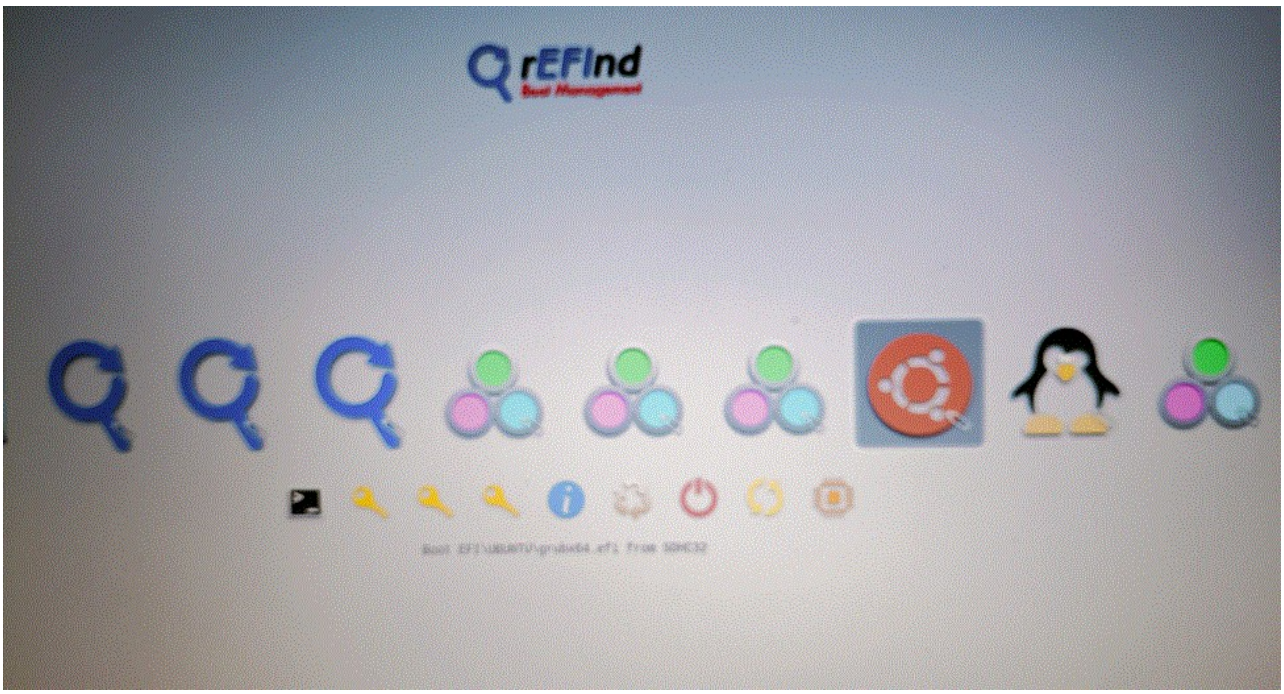

Please select boot device
OS Boot Manager (UEFI) - Windows Boot Manager (WDC PC SN530 SDBPNPZ-512G-1006)
OS Boot Manager (UEFI) - ubuntu (MultipleCard Reader)
Boot From EFI File
↑ and ↓ to change option. Enter to select an option.
Press F10 to BIOS Setup Options. ESC to exit.

Select boot from USB or SD Card and <Enter>

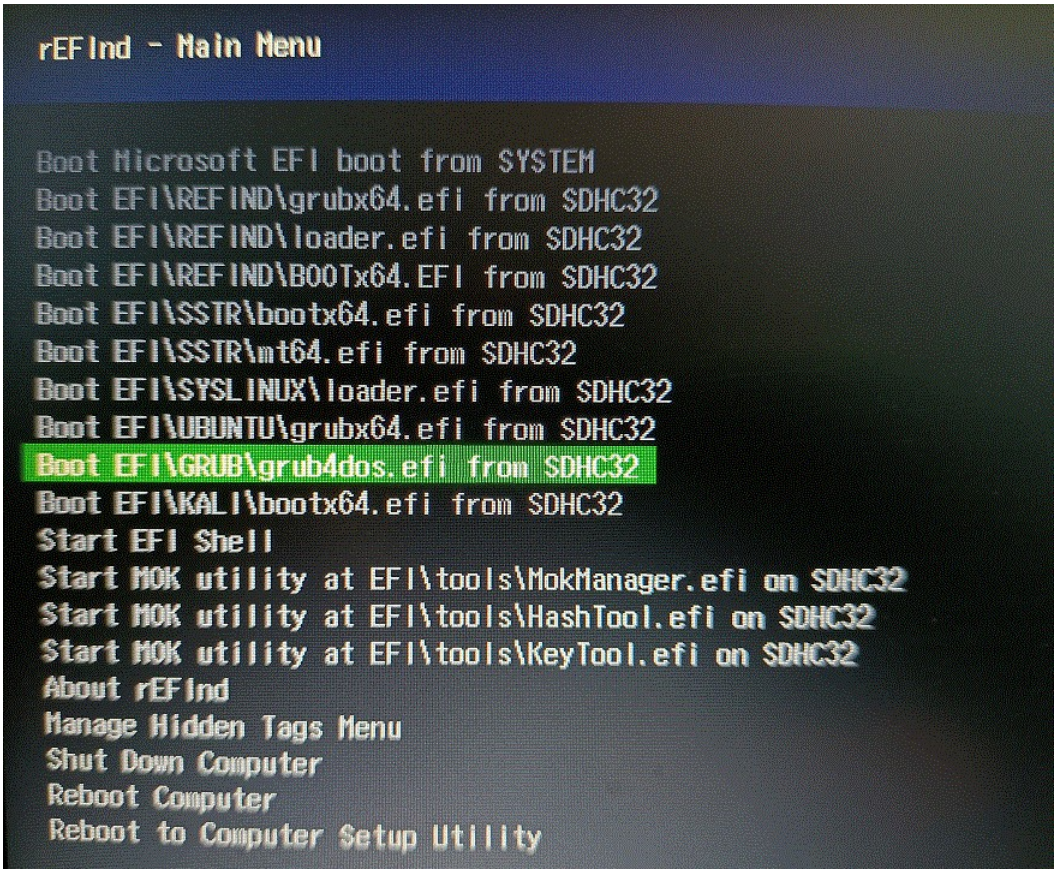
Have fun with your modifications

Refind

Example of REFIND bootloader in graphical mode:



Example of REFIND bootloader in text mode:


rEFInd - Main Menu
Boot Microsoft EFI boot from SYSTEM
Boot EFI\REFIND\grubx64.efi from SDHC32
Boot EFI\REFIND\loader.efi from SDHC32
Boot EFI\REFIND\BOOTx64.EFI from SDHC32
Boot EFI\SSTR\bootx64.efi from SDHC32
Boot EFI\SSTR\mt64.efi from SDHC32
Boot EFI\SYSLINUX\loader.efi from SDHC32
Boot EFI\UBUNTU\grubx64.efi from SDHC32
Boot EFI\GRUB\grub4dos.efi from SDHC32
Boot EFI\KALI\bootx64.efi from SDHC32
Start EFI Shell
Start MOK utility at EFI\tools\MokManager.efi on SDHC32
Start MOK utility at EFI\tools\HashTool.efi on SDHC32
Start MOK utility at EFI\tools\KeyTool.efi on SDHC32
About rEFInd
Manage Hidden Tags Menu
Shut Down Computer
Reboot Computer
Reboot to Computer Setup Utility

Change this option editing EFI/BOOT/refind.conf (textonly vs #textonly)